

Revision of the Genus *Cosmotoma* Blanchard. (Coleoptera, Cerambycidae, Lamiinae)

E. F. GILMOUR

Director, Museum and Art Gallery, Doncaster, Yorks, England

(Text-figures 1-15)

THIS PAPER presents the results of examination of the genus *Cosmotoma* Blanchard, incurred during broad preliminary investigations of the Neotropical Acanthocinini as a whole.

The species of this genus have proved to be comparatively rare in collections, at least in series, although several new species are herein described, some of which have up to now stood under other names. The synonymy of the genus is herein rectified, having up to the present been to a large extent given wrongly in various catalogues and papers.

Grateful acknowledgment is made to the following institutions and individuals for their kindness in sending specimens for examination:—

The United States National Museum, Washington.

The American Museum of Natural History, N. Y.

The Musée Royal d'Histoire Naturelle de Belgique, Brussels.

Zoologische Staatssammlungen, Munich.

The Hincks-Dibb collection (per Dr. W. D. Hincks), Manchester.

The Dr. P. Lepesme collection, Paris.

The Dr. J. M. Bosq collection, Buenos Aires.

The specimens used for the basic investigation are in the author's collection.

I would also like to take this opportunity of expressing my very grateful thanks to the New York Zoological Society for its grant to me during 1953 from the Society's Program for Aid of Biological Research in Europe.

A distribution map of the genus is given (Text-figure 1) in this paper.

COSMOTOMA Blanchard

Blanchard, 1845, *Hist. Nat. Ins.*, 2, 155.—

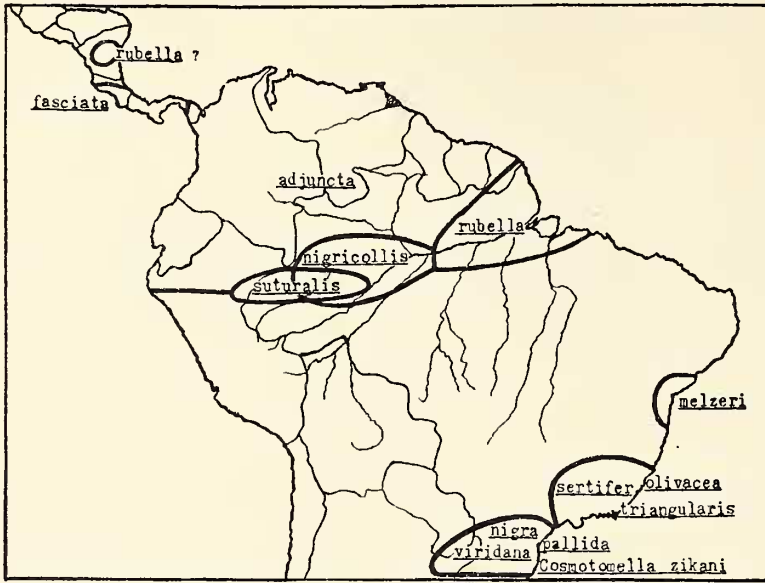
Bates, 1864, *Ann. Mag. Nat. Hist.*, (3) 13, 147.

—Lacordaire, 1872, *Gen. Col.*, 9 (2), 767, 780.

—Bates, 1881, *Biol. Centr. Amer. Col.*, 5, 160.

Beltista Thomson, 1860, *Classif. Ceramb.*, 16; 1864, *Syst. Ceramb.*, 355.

Description.—Not very robust, a little elongate-oval in shape; pubescent; with erect hairs scattered throughout. Head moderately concave between the antennal tubercles, which are not strongly raised; genae elongate; lower lobes of the eyes small, acuminate inferiorly. Antennae from about one and a third times up to about twice as long as the body in males, slightly longer than the body to about one and a half times as long in females; covered with long fine hairs, most numerous below; the fourth segment bearing apically a large distinct tuft of hairs, which often completely encircles the apex; segments two, three, and sometimes five and six with a pencil of hairs beneath the apex; the scape not very swollen, moderately elongate, only reaching to about the middle of the pronotum but equal to or longer than the third segment; the fourth segment longer than the third, (Lacordaire states that the third is longer than the fourth, but this is probably an error in transcription), the fifth to eleventh gradually decreasing in length. The pronotum transverse, convex, bearing two discal obtuse tubercles, narrowed basally and apically; the lateral tubercle on each side rather strong, conical, placed a little behind the middle. Scutellum small, sub-triangular. Elytra not very elongate, slightly less than twice as long as broad; only moderately convex, sub-parallel or moderately rounded laterally, declivous and narrowing posteriorly; projecting beyond the pronotal base a little anteriorly; obliquely truncate apically;



TEXT-FIG. 1. Distributional map of the species of *Cosmotoma* Blanchard.

with a centro-basal tumescence on each elytron, bearing a fascicule of hairs. Legs of moderate length; femora pedunculate then strongly ovularly swollen apically; tarsi short, the first segment of the posterior tarsi scarcely as long or slightly shorter than the following two united. Prosternal protuberance rather narrow, curved posteriorly; mesosternal protuberance broad, triangular, recurved posteriorly. Apical ventrite transverse, sub-triangularly broadly rounded in male; a little more elongate in the female, and with a median longitudinal groove on the basal half.

Genotype: *COSMOTOMA ADJUNCTA* Thomson

The genus *Beltista* Thomson was only named by that author because he considered that the name *Cosmotoma* was too similar to the name *Cosmisoma* (Cerambycidae, Cerambycinae). It therefore is a synonym of *Cosmotoma* Blanchard.

The name *Cosmotoma* was first given by Dejean in 1836, Col. Cat., ed. 3, 364, but as neither of the two species, *venustulum* Dejean and *plumicornis* Dupont, listed there are valid, the name does not become valid until Blanchard described it in 1845. Blanchard here gives the species *venustulum* Dejean in the genus. This name is however still invalid as no description has been made of it. In 1860, Thomson described the species *adjuncta* as genotype of his genus *Beltista*. Chevrolat then stated (1861, Journ. Ent., 1, 188) that *adjuncta* Thomson

was synonymous with *venustulum* Dejean. The latter being, however, an invalid name, and the name *adjuncta* Thomson the first available valid one, the latter is consequently the type of the genus *Cosmotoma* Blanchard. It appears that *sertifer* Serville cannot be considered under the International Code, Article 30, Section 11, e (1).

It is interesting to note that Thomson, after his description of *adjuncta* (1860, Classif. Ceramb., 16) states: "Ma collection renferme 6 espèces devant rentrer dans ce genre." Strangely enough, however, he never described any of these and it is possible that some of the new species which I describe herein may be similar to some of those among the six mentioned.

KEY TO SPECIES

1. Elytral apex simply obliquely truncate, the marginal angle not spinously produced . 2
Elytral apex with the marginal angle spinous 6
2. Base of elytra black 3
Base of elytra not black, nor the suture black on the anterior half 4
3. Pronotum black from the anterior transverse groove; basal black elytral area with a ferruginous prolongation to the humerus giving the black area a bilobed appearance, the antero-sutural black portion not joining the posterior black area
suturalis sp. nov.

Pronotum only black on its posterior half; basal black elytral area complete, without a ferruginous prolongation to the humerus, the suture completely black between anterior and posterior black areas

fasciata Fisher

- 4. The pronotum completely more or less blackish in color

adjuncta nigricollis Bates

The pronotum not completely black in color, at most basally and part laterally . 5

- 5. Pronotum completely light ferruginous in color *adjuncta rubella* Bates

Pronotum light ferruginous basally, extending posteriorly in a triangle to a little behind the middle, the rest blackish

adjuncta Thomson s. str.

- 6. Completely more or less unicolorus, without markings 7

Not unicolorus, with light and dark bands and markings 8

- 7. Completely blackish in color

nigra sp. nov.

Completely more or less yellowish-ferruginous in color *pallida* sp. nov.

- 8. The post-median elytral transverse black band almost straight anteriorly

melzeri sp. nov.

The post-median dark colored band not straight, distinctly curved and may be broken in part or lacking 9

- 9. Pronotum greenish-black or blackish in color 10

Pronotum ferruginous in color 11

- 10. Post-median elytral transverse band distinct, somewhat irregularly, fairly strongly, anteriorly curved, distinctly blackish pubescent and strongly contrasting from the rest of the elytra; the two discal pronotal tubercles strongly separately raised; the pronotum with distinct large punctures in the anterior transverse groove

viridana Lacordaire

Post-median elytral band not present as such, not blackish, slightly posteriorly curved, but only present as the basal dermal olive-green color separated from the rest by grayish pubescence; the two discal pronotal tubercles not at all separated medially, but planely connected; no large punctures present in the anterior pronotal groove *olivacea* sp. nov.

- 11. Post-median elytral band black, narrow, distinctly strongly and regularly curved, broadly bordered posteriorly with ferruginous pubescence; the third antennal seg-

ment slightly shorter than the scape (δ unknwn) *triangularis* sp. nov.
Post-median elytral band almost not present, faint, ferruginous pubescent in part at the suture; the third antennal segment slightly longer than the scape ($?\delta$ unknwn) *sertifer* Serville

COSMOTOMA ADJUNCTA Thomson

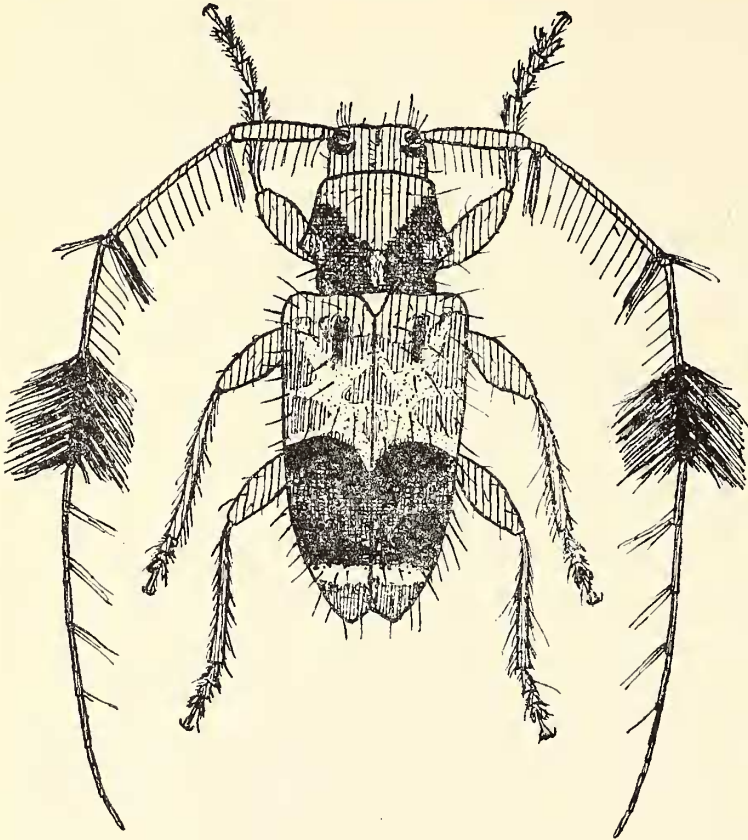
Text-fig. 2

Thomson, 1860, *Classif. Ceramb.*, 16.—Chevrolat, 1861, *Journ. Ent.*, 1, 188. (nota synonym.)
—Bates, 1864, *Ann. Mag. Nat. Hist.*, (3) 13, 148. (nota).

Description. Male.—Ferruginous in color except for the posterior half of the pronotum, pitchy, extending forward laterally from the middle and narrowing to about the basal fifth at the border, thus leaving a sub-triangular ferruginous area medio-anteriorly; the elytra pitchy behind the middle, except usually the extreme apex, the anterior border of this dark area strongly curved and well defined; the basal declivity somewhat lighter ferruginous than the rest. Marked with grayish-white pubescence on the elytra as follows: the post-median pitchy area bordered anteriorly with grayish-white, ramifying forward suturally in a fairly regularly placed lattice-work in which one white band extends to the margin at about the basal third, one obliquely forward to the humeri, and one obliquely forward to the suture at about the basal quarter; a distinct transverse white fascia at about the apical sixth; the centro-basal elytral tumescence crested with strong black setae. The antennal segments from the third with grayish pubescence basally, the setae, fasciculae and brushes of hairs black.

The underside darker ferruginous than above, sometimes pitchy-brown and the abdomen occasionally almost black. Covered with grayish-white pubescence, thin in parts and most dense on the sides of sternum and laterally on the posterior border of the first abdominal segment.

Antennae one and a half to one and three-quarter times as long as the body; slender; fringed below, after the fourth segment chiefly at the apices; segments two and three with distinct pencils of black hairs beneath, the latter at the apex; the fourth segment bearing on a little more than its apical third a strong dense brush of long hairs, which encircles the segment, which is somewhat swollen on the area which bears the setae; the scape moderately elongate, reaching to about the middle of the pronotum, a little swollen, but not strongly; the third segment about one and a third times as long as the scape, the fourth segment almost one and a



TEXT-FIG. 2. *Cosmotoma adjuncta* Thomson s. str. ♂ ($\times 9.6$).

half times as long as the third segment, about twice as long as the scape, and about four times as long as the fifth segment, the rest gradually decreasing to the apex; the segments completely finely and closely punctured, except where the fasciculae and brushes of setae arise where the punctures are very much larger. The antennal tubercles only slightly raised, the head broadly and slightly concave between; the frons large, about equilateral, moderately convex, with a very fine median longitudinal groove; the lower lobes of the eyes small, narrowing inferiorly, about one and a half times as long as broad, about equal in length to the genae; the head completely finely and closely punctured, bearing a few long setae anteriorly and at the inner frontal margin of the eyes; finely tawny pubescent.

The pronotum transverse, convex, with two, well raised, obtuse tumescences on the disc; with a strong broadly conical, spinous swelling laterally on each side slightly post-medially; completely very finely and closely punctured, with a single row of sparse, very large punctures apically and one basally in the transverse grooves, which are broad and rather shallow; finely tawny pubescent anteriorly, grayish pub-

escent posteriorly on the dark area, most dense on the posterior border of the lateral spines. The scutellum sub-triangular to sub-rotundate, fairly narrowly rounded apically; very finely and closely punctured; finely grayish pubescent.

The elytra not very elongate, only moderately convex, rounded laterally; the apices obliquely truncate, the marginal angle not spinous; the centro-basal crests strongly raised, black fasciculate; completely finely and closely punctured, the scattered black setae rising from larger punctures.

The prosternal protuberance narrow, particularly between the coxae, somewhat broadly concave medially; strongly curved. The mesosternal protuberance very broad anteriorly, sub-triangular, truncate apically, the truncature being somewhat wider than the breadth of the prosternal protuberance medially. The ventrites of normal size; the apical segment transverse, somewhat sub-triangular and broadly rounded apically. The underside completely very finely and variably closely punctured; finely grayish-white pubescent, mostly rather sparse, most dense on the sides of the metasternum and latero-posterior border of the first abdominal segment.

The legs of moderate length; femora strongly pedunculate; tarsi moderately slender, the first segment of the posterior about equal in length to the following two segments united; all the legs very finely and fairly closely punctured; sparsely and finely grayish-tawny pubescent.

Female.—Similar in color to the male. The antennae a little less elongate. The apical ventrite a little more elongate.

Length, 6.5-8 mm.; breadth, 2.5-3 mm.

Locality.—French Guiana—(Chevrolat) (Mus. Hist. Nat. Belg.). Brazil—Para (Gilmour coll.) (1 ♂); "Amazon" (Mus. Hist. Nat. Belg.); Santarem (United States National Museum) (1 ♂, 4 ♀); Manaus (Hincks-Dibb coll.) (1 ♂). Peru—Achinamiza (1.XII.26, H. Bassler) (Amer. Mus. Nat. Hist.) (1 ♀); Callanga (Hincks-Dibb coll.) (1 ♂). Colombia—Cartagena (1.1.21) (Amer. Mus. Nat. Hist.) (1 ♀).

Material Examined.—Mus. Hist. Nat. Belg., 2; Amer. Mus. Nat. Hist., 2; Gilmour collection, 1; United States National Mus. 5; Hincks-Dibb collection, 2; Total: 12.

COSMOTOMA ADJUNCTA Thomson var. (?subsp.)

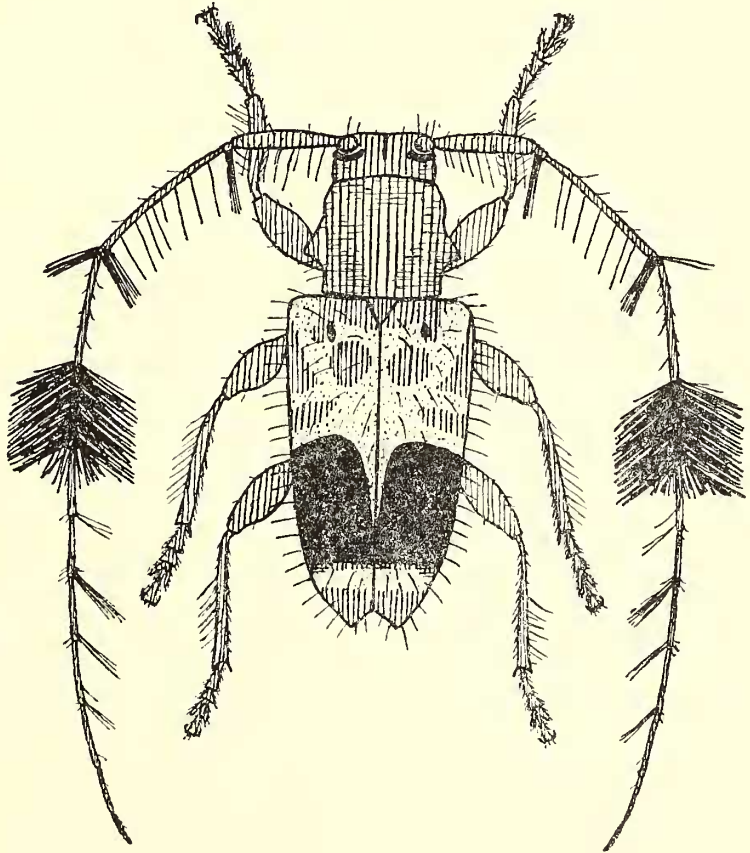
RUBELLA Bates

Text-fig. 3

Bates, 1864, Ann. Mag. Nat. Hist., (3) 13, 14; 1872, Trans. Ent. Soc. Lond., 237; 1881, Biol. Centr. Amer. Col., 5, 160, pl. 13, fig. 8.

Cosmotoma rubella Bates has stood up to the present as a good species but so far as I can ascertain it is structurally quite similar to *Cosmotoma adjuncta* Thomson and the distribution areas of *adjuncta* Thomson and *rubella* Bates overlap. Bates, however, states (1872, Trans. Ent. Soc. Lond., 237) that the specimen from Chontales, Nicaragua, is "rather darker in colour of the elytra than specimens from the Amazons" and in my opinion, in view of the fact that there is such a wide gap between the known distributional areas, this specimen might be of a different species. The coloration of the figure given by Bates is not particularly good.

Description.—The variety *rubella* Bates differs most conspicuously from the typical form of *C. adjuncta* Thomson in the pronotum being completely ferruginous-red in color, without any trace of dark color anywhere. This would appear to be quite constant. Also the posterior pitchy area of the elytra seems to have its anterior curved border continued suturally a little further behind before meeting the suture.



TEXT-FIG. 3. *Cosmotoma adjuncta rubella* Bates. ♂ (× 11.0).

Length, 5-7.5 mm.; breadth, ?-2.8 mm.

Locality.—Brazil—Para (Bates); R. Tapajos (Bates). French Guiana—(Bates); (Gilmour collection) (1♀). Nicaragua—Chontales (Belt) (Bates).

Material Examined—Gilmour collection, 1.

COSMOTOMA ADJUNCTA Thomson, var.
(?subsp.) NIGRICOLLIS Bates

Text-fig. 4

Bates, 1864, Ann. Mag. Nat. Hist., (3) 13, 148.

Cosmotoma nigricollis Bates, which has previously been sunk as a synonym of *Cosmotoma adjuncta* Thomson, has in my opinion as good a claim to validity as *C. rubella* Bates. In the same way that *rubella* Bates is a very distinct form of *Cosmotoma adjuncta* Thomson, so I consider *nigricollis* Bates to be equally distinct, but being the darker colored form and not lighter form as *rubella* Bates. Structurally again I can find no distinguishing feature for *nigricollis* Bates from *C. adjuncta* Thomson or *rubella* Bates.

Description.—The variety *nigricollis* Bates differs most conspicuously from the typical form

of *C. adjuncta* Thomson in the pronotum being completely pitchy-black in color without any ferruginous color at all. The posterior half of the head is also dark colored. This coloration is constant in all specimens examined. Also the pre-apical transverse white pubescent band on the elytra is often more extensive, though the pubescence is thinner, thus giving the appearance of a rather narrower posterior elytral dark colored area. This form is shown in the figure given herein.

Length, 5.5-6.5 mm. (Bates' specimens appear to have been larger, measuring 7.7-8.5 mm.); breadth: 2.2-2.5 mm.

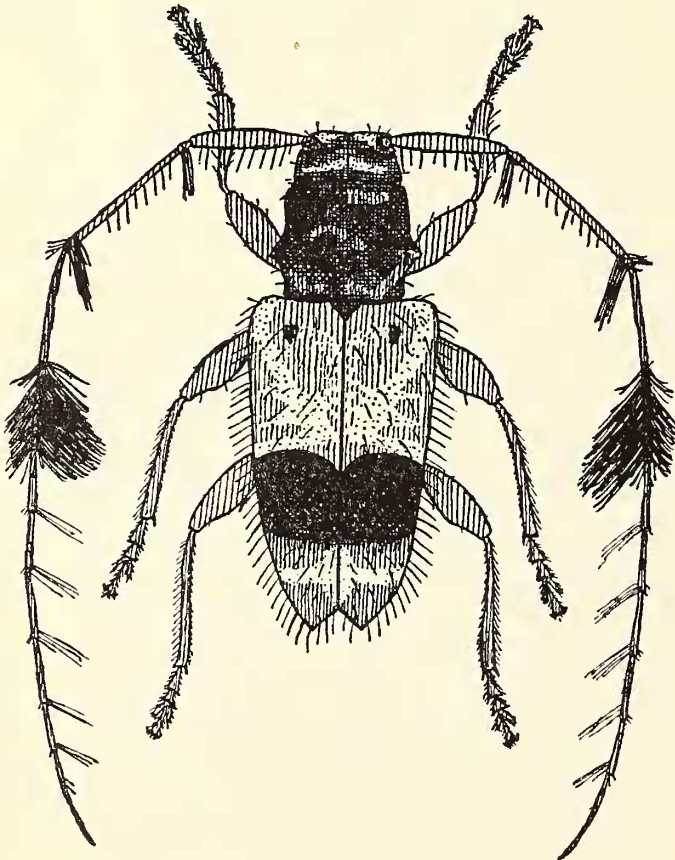
Locality.—Brazil—Upper Amazons, Ega (Bates); Amazon (Gilmour coll.) (1♀), (R. Mus. Nat. Hist. Belg.); (Am.m.!) (Zool. Staatssamml., Mun.) (1♂); Teffe (X1.24, H. Bassler) (Amer. Mus. Nat. Hist.) (1♂).

Material Examined.—Amer. Mus. Nat. Hist., 1; Mus. Hist. Nat. Belg., 1; Zool. Staatssamml., Mun., 1; Gilmour collection, 1; Total: 4.

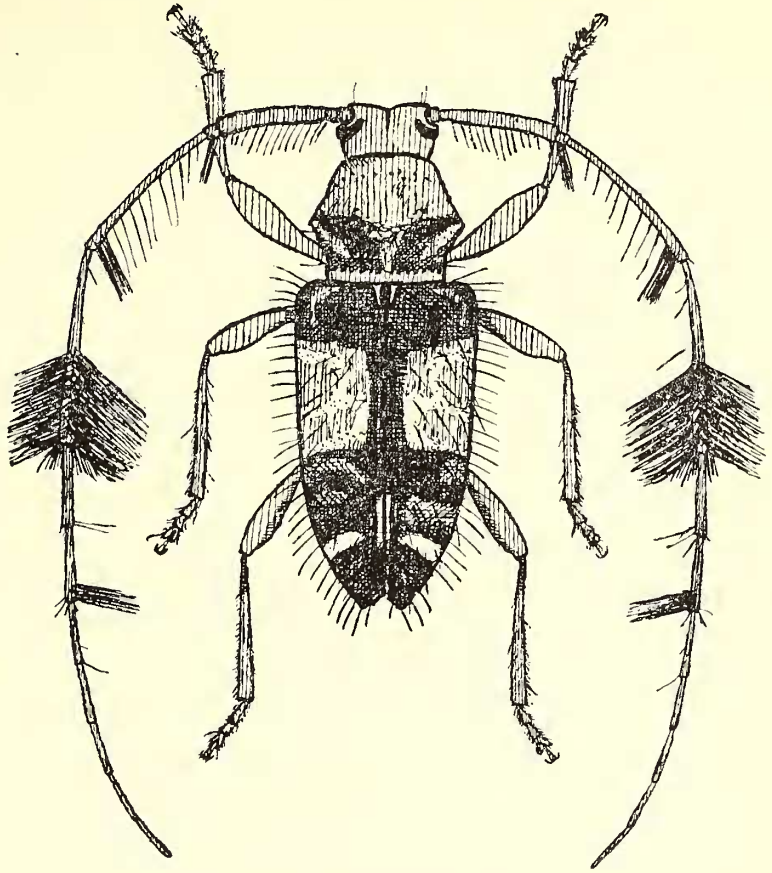
COSMOTOMA FASCIATA Fisher

Text-fig. 5

Fisher, 1931, Journ. Wash. Acad. Sci., 21 (2), 23.



TEXT-FIG. 4. *Cosmotoma adjuncta nigricollis* Bates. ♂ (× 11.0).



TEXT-FIG. 5. *Cosmotoma fasciata* Fisher. ♂ ($\times 9.6$). Paratype.

Description. Male.—Ferruginous and black in parts as follows: antennae ferruginous, the setae black; the head ferruginous. Pronotum with about the anterior half and posterior border (narrowly) ferruginous, the rest black; scutellum black. The elytra with almost the basal quarter black, the posterior border of this area almost rectilinear, and about the apical two-fifths black (the anterior border only slightly curved), these two areas united by a common sutural black band; the area between these ferruginous. The legs ferruginous, a little darker basally; the anterior femora pitchy postero-dorsally. The ventral surface pitchy to black, except the head and anterior border of the pronotum.

The head and anterior half of the pronotum with sparse tawny pubescence, this becoming denser towards the sides of the pronotum and forming a vague macula dorso-laterally on each side. Marked with thin white or grayish-white pubescence as follows: the pronotum medially longitudinally and behind the lateral tubercles on the posterior half; the lateral borders of the scutellum; the inner side of the humeri; three somewhat curved irregular transverse fasciae on

the ferruginous elytral area which unite towards the suture; one or two vague transverse areas on the apical black area, and a very distinct densely white pubescent oblique latero-discal macula at about the apical fifth, and an almost as distinct, though less clearly defined, common white sutural macula at about the apical quarter. The underside more or less completely very sparsely grayish-white pubescent, which becomes densely white at the latero-posterior angles and posterior border of the sternum and at the latero-posterior borders of the first and apical abdominal segments.

Antennae about one and three-quarter times as long as the body; slender; fringed beneath on the basal segments; the fourth segment bearing round its apical half a large brush of black hairs; the second, third and sixth segments with distinct apical pencils of black hairs, (Fisher states the fifth segment, not sixth, but this I think is an error). The scape elongate, not very swollen, extending to about the apical third of the pronotum; the third segment about one and a third times as long as the scape, the fourth segment not quite one and a sixth times as long as the

third, about one and two-third times as long as the scape, and about two and a third times as long as the fifth segment, the rest gradually decreasing to the apex; the fourth segment distinctly swollen on its apical half; the antennal segments completely and finely punctured, with larger punctures from which the setae arise, particularly on the fourth segment.

The antennal tubercles slightly, but not strongly, raised, slightly broadly concave between; the frons about as long as broad, slightly convex, with a fine median longitudinal groove; the lower lobes of the eyes small, narrowing inferiorly, slightly longer than broad, about equal in length to the genae; the head completely very finely and closely punctured, with a few long erect setae scattered marginally on the frons, particularly at the anterior border.

The pronotum slightly broader than long, convex, with two well raised obtuse tumescences on the disc; with a slight, though broadly conical, spinous swelling laterally on each side, slightly behind the middle; completely very finely and closely punctured, with a few large coarse punctures in the anterior and posterior transverse grooves, which latter are broad and only moderately deep. The scutellum a little longer than broad, sub-triangular, very broadly rounded, almost truncate, apically; very finely and closely punctured.

The elytra moderately elongate, moderately convex; almost parallel-sided laterally to about the apical third, then broadly rounded to the apices, which are obliquely internally truncate, the marginal angle not spinous; the centro-basal tubercle on each elytron strongly raised, black fasciculate above; completely finely and closely punctured, with a number of larger, coarse, punctures scattered here and there, from which erect black setae arise; a distinct sub-sutural line on each elytron, which is much less distinct pre-medially.

The prosternal protuberance moderately narrow, more so medially, longitudinally concave medially, strongly curved. The mesosternal protuberance subtriangular, very slightly tumescent medially, strongly curved, truncate apically, the truncature being only very slightly broader than the breadth of the prosternal protuberance medially. The apical ventrite very broadly somewhat subtriangular in shape, the apex broadly rounded. The whole underside completely finely and closely punctured; the apex of the apical ventrite with a few large coarse punctures.

The legs of moderate length; the femora strongly pedunculate; the tarsi fairly slender, the first segment of the posterior about equal in length to the following two united; all very finely and fairly closely punctured.

Female.—Apparently unknown. (I have only seen one male paratype and from Fisher's original description it would appear that all the specimens are males).

Length, 5-7.5 mm.; breath: 2-3.2 mm.

Locality.—Costa Rica—Reventazon River, Hamburg Farm, (4.11.25, F. Nevermann) (Type Locality). Panama—(15.IV.37), In Banana debris (W. J. Fisher *in litt.*).

Type, two Paratypes and one other specimen (Panama) in the United States National Museum. (The F. Nevermann collection was purchased by this institution on Nevermann's death). One Paratype (♂) in the Gilmour collection. (Exchanged with the United States National Museum for a paratype of *Cosmotoma pallida* sp. nov.).

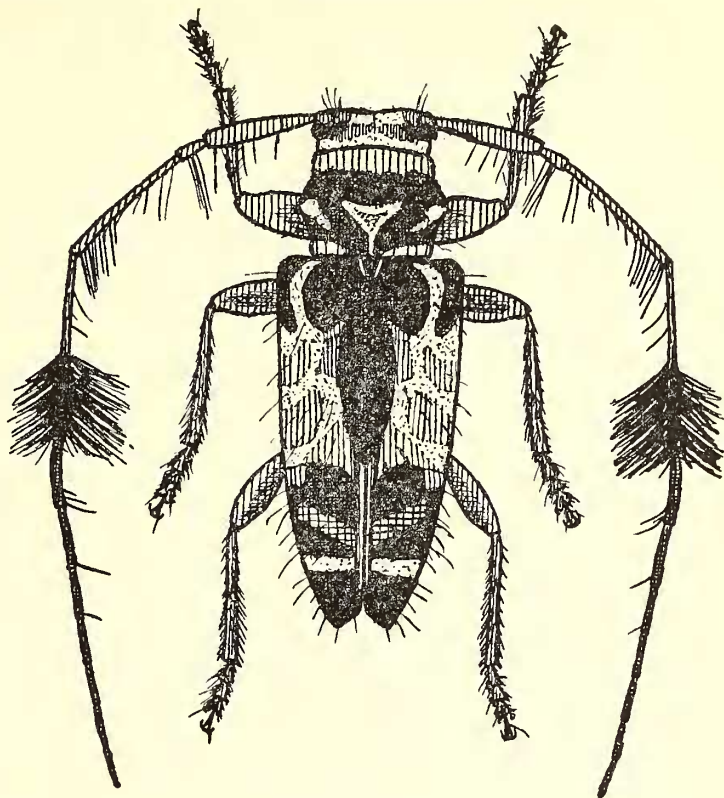
This species is most closely allied to *Cosmotoma suturalis* sp. nov. described in this paper, the differences from it being given with that species. From *Cosmotoma adjuncta* Thomson and the other species it differs at first glance in both base and apex of the elytra being black.

COSMOTOMA SUTURALIS sp. nov.

Text-fig. 6

Description.—*Male*. Ferruginous and black in parts as follows: antennae ferruginous, the setae black; the head ferruginous, a little darker posteriorly; the genae black. Pronotum with the anterior border ferruginous, in front of the anterior transverse groove, and the basal margin ferruginous, not extending to the posterior transverse groove medially, the rest black; scutellum pitchy-ferruginous, not quite black. The elytra black basally, almost up to the basal quarter, and extending in a first broadening, then narrowing band along the suture to about the apical two-fifths; the elytra then ferruginous up to about the apical two-fifths, with a ferruginous curved projection anteriorly to the base running on the inner side of the humeri; about the apical two-fifths black, the anterior border distinctly curved. The legs ferruginous, blackish basally and ventrally on the anterior femora, and ventro-basally on the intermediate and posterior femora.

Marked with white or grayish-white pubescence as follows: the lateral margins of the frons and the posterior border of the head; the anterior border of the pronotum thinly yellowish-white; the postero-superior border of the lateral tubercles; a triangular area on the pronotal disc, between the tumescences, apex towards the base; the elytra with whitish pubescent bands, on the ferruginous area, running from anterior border, middle and posterior border marginally to unite on the disc before the sutural black area and continued forward to the base along the inner side of the humeri; a distinct trans-



TEXT-FIG. 6. *Cosmotoma suturalis* sp. nov. ♂ ($\times 10.0$).
Holotype.

verse white fascia at about the apical fifth; a vague oblique patch of tawny pubescence on the black area in front of this.

Underside completely black, the apical ventrite slightly lighter in color—pitchy-ferruginous apically; covered thinly with grayish pubescence, which becomes dense at the latero-posterior angle of the sternum and at the side of the first and apical abdominal segments.

Antennae slightly more than one and a half times as long as the body; slender, fringed beneath on the basal segments, most densely on the second and apex of the third segments, becoming sparse apically from the fifth segment; the fourth segment bearing around its apical half a large brush of black hairs. The scape moderately elongate, a little swollen, reaching to about the basal third of the pronotum; the third segment about one and a quarter times as long as the scape, the fourth segment about one and a third times as long as the third, about one and three-quarter times as long as the scape, and nearly three times as long as the fifth segment, the rest gradually decreasing to the apex; the fourth segment distinctly swollen towards the apex where the brush of setae rises; the fifth segment rather distinctly curved; the antennal segments completely and finely punctured, with

larger punctures from which the setae arise, particularly those on the fourth segment.

The antennal tubercles slightly raised, but not strongly, moderately strongly broadly concave between; the frons very slightly longer than broad, almost equilateral, slightly convex, with a fine median longitudinal groove; the lower lobes of the eyes small, a little narrowing inferiorly, slightly longer than broad, about three-quarters as long as the genae; the head completely very finely and closely punctured, with a few long setae scattered marginally on the frons; sparsely grayish-white pubescent in the main.

The pronotum transverse, convex, with two well raised, obtuse tumescences on the disc; with a strong, broadly conical, spinous swelling laterally on each side slightly post-medially; completely finely and closely punctured, with posterior transverse grooves, which latter are broad and not very deep. The scutellum slightly longer than broad, sub-triangular, broadly rounded apically; very finely and closely punctured; blackish pubescent, with the lateral borders finely grayish pubescent.

The elytra not very elongate, only moderately convex; almost straight-sided laterally to about the apical third, then broadly rounded to the

apices, which are obliquely truncate, the marginal angle not spinous; the centro-basal tumescences strongly raised, very sparsely black setose; (I believe that in the specimen examined the fasciculae have been knocked off to some extent. The setae, composing the normal fasciculae in the species of this genus, appear to be loosely attached and are easily dislodged); completely finely and closely punctured, the scattered black setae arising from slightly larger punctures; a fairly distinct longitudinal sutural carina on the apical half.

The prosternal protuberance narrow, particularly medially, strongly concave, strongly curved. The mesosternal protuberance very broad, particularly anteriorly, sub-triangular, slightly tumescent medially, truncate apically, the truncature being almost twice as broad as the breadth of the prosternal protuberance medially. The apical ventrite transverse, broadly slightly sub-triangular in shape, the apex broadly rounded. The whole underside completely finely and closely punctured; the apex of the apical ventrite with a few moderately large punctures.

The legs of moderate length; the femora strongly pedunculate; the tarsi moderately slender, the first segment of the posterior about equal in length to the following two united; very finely and closely punctured.

Female. Similarly colored to the male. More robust. The antennae about one and a half times as long as the body.

The apical ventrite transverse, but slightly sub-conically triangular in shape, with a fine median anterior groove, the apex broadly bisinuate truncate; the apex with a number of very large, coarse, close punctures.

Length, 6.5-8 mm.; breadth, 2.5-3.2 mm.

Locality.—Brazil—Manaos (δ) (Holotype); "Amazonas" (φ) (Allotype). Peru—Gancartambo (δ) (Paratype).

Holotype, δ , in the Hincks-Dibb collection. Allotype, φ , in the Musée Royale d'Histoire Naturelle de Belgique. (Coll. Achard) (Coll. Le Mout Box M.669) (R. Mus. Hist. Nat. Belg. I.G. 12, 595). Paratype, δ , in the Dr. P. Lepesme collection, Paris.

Diagnosis.—This beautiful new species is most closely allied to *Cosmotoma fasciata* Fisher from Costa Rica, from which it differs in the sutural black band on the anterior half not reaching the apical black area; with a prolongation of ferruginous color to the humerus; the pronotum being almost completely black, except anterior to the transverse groove, and other differences. From *C. adjuncta* Thomson and all the other known species in the genus it differs conspicuously in markings, through the sutural black band, pronotal dark and ferruginous areas, etc.

The paratype is in much worse condition and of less bright coloration than the holotype and allotype, probably due to age and dust.

COSMOTOMA SERTIFER Serville

Text-fig. 7

Serville, 1835, Ann. Soc. Ent. France, 4, 59. —Lacordaire, 1872, Gen. Col., 9 (2), 654, nota 2.—Aurivillius, 1923, Col. Cat. Ed. Junk-Schenkling, 74, 419.—Melzer, 1927, Rev. Mus. Paulista, 15, 575 (nota synonym.).—Linsley, 1933, Pan-Pacific Ent., 9 (3), 132. (Synonymy).

brasiliensis Plavilstshikov, 1927, Encycl. Ent. B.1.—Col., 2 (2), 59.

sertifer Aurivillius, 1923, Col. Cat. Ed. Junk-Schenkling, 74, 334. (*Pogonocherus*).

I do not agree with any of the other authors, viz., Aurivillius (1923), Melzer (1927), Linsley (1933), or Blackwelder (1946, Bull. U. S. Nat. Mus., 185, 617), that *Cosmotoma viridana* Lacord. is synonymous with *Cosmotoma sertifer* Serville. I regard them as two distinct species.

C. sertifer Serville has not been described or even mentioned as a collected species from the time it was described and although Serville's original description lacks many important points in view of modern knowledge, there are several points of note which could not have been missed out of any description, however early, particularly as regards coloration. Most important and immediately noticeable is the lack of mention of any post-median black transverse band. I have seen the types of *viridana* Lacord., and this band is distinctly present. I have further seen a single specimen which agrees with the description of *sertifer* Serville and it is quite distinct from *viridana* Lacordaire.

I give a translation of Serville's original description below for comparison, as well as a full description of the specimen examined.

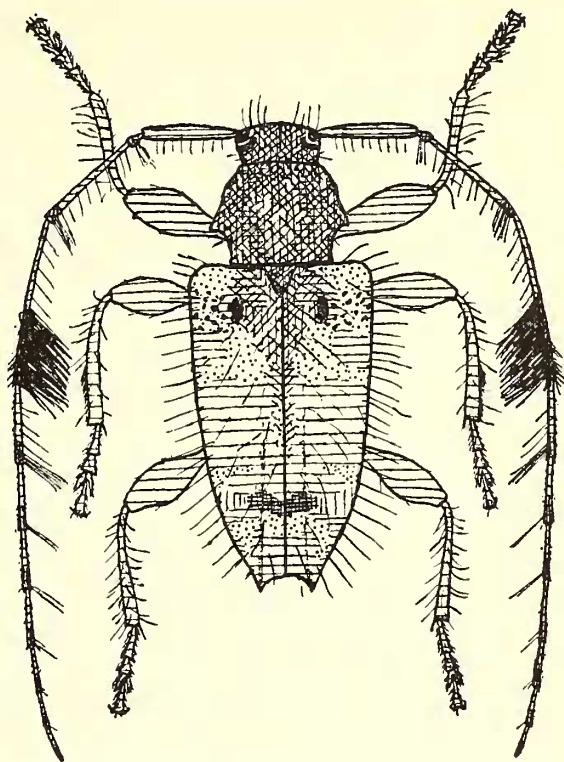
Serville placed his species *sertifer* in his 1st Division of the genus *Pogonocherus*, separated by the following characters:

"Elytra truncate at the apex; the external angle of the truncature unispinous (p. 57).

"(Length, 2 to 3 lines [i.e., ca. 4.2-6 mm.]).

"Body a little shining, blackish and covered with long brown hairs, sparse, above; ferruginous below. Pronotum swollen at the middle, bordered posteriorly. Elytra slightly bordered exteriorly and at the suture, each having at the base a feeble tubercle bearing some long stiff and brown hairs; they are tinted with greenish towards their apex. The antennae brown, having a tuft of black hairs on their fifth segment, the first greenish. The legs of ferruginous brown, with some hairs like the body; femora greenish.

"From Brazil. My collection." (Translation of original description).



TEXT-FIG. 7. *Cosmotoma sertifer* Serville. ♂
($\times 10.3$).

There is a very obvious discrepancy in this description where it states that the *fifth* segments of the antennae bear a tuft of black hairs. This I believe is almost certainly a mistake. If it is not an error on the part of author or printer, then the species of Serville does not belong to this genus, and the specimen which I describe below will need a new name in being a new species.

Neither does Serville state the extent of the brownish pubescence or greenish color of the elytra. I take it that the head and pronotum are brown pubescent and the elytra in part, gradually becoming green towards the apex. In my specimen the elytra are almost wholly greenish, but I presume that this is perhaps a rather variable character.

Male.—Ferruginous and greenish as follows: head and pronotum closely ferruginous pubescent, the extreme apex of the scape and its second segment completely ferruginous, the tarsi in the main ferruginous, the underside completely ferruginous, the sternum however pitchy-red; the antennae in the main, and the femora and tibiae greenish, the elytra greenish in the main except baso-suturally and narrowly along the suture, and a vague, ferruginous, irregular, transverse band at about the apical third, the elytra also with vague areas of silvery-gray pubescence, chiefly on the inner side of the

humeri extending posteriorly to about the basal third, thence branching to margin and suture, running narrowly along the latter and extending to the margin again just before the apical third, and apically. The underside with thin grayish pubescent, a little more dense on the sternum and sides of the anterior abdominal segments.

Antennae about one and two-thirds times as long as the body; slender, fringed beneath, becoming sparse after the fourth segment, where they are chiefly confined to the apices; segments two, three and five with thin pencils of hairs beneath the apex, segment four bearing a strong brush of dense black setae on the inner apical two-fifths, not extending completely round the segment; which is somewhat swollen on the area from which the setae arise. The scape moderately elongate, reaching to about the apical quarter of the pronotum, a little swollen; the third segment about one and a fifth times as long as the scape, the fourth segment about one and a half times as long as the third, about one and three-quarter times as long as the scape, and twice as long as the fifth segment, the rest gradually decreasing to the apex; the segments completely finely and fairly closely punctured, with somewhat larger punctures from which the long setae arise. The antennal tubercles only slightly raised, the head broadly and only very slightly concave between; the frons large, more

or less equilateral, moderately convex, with a very fine median longitudinal groove; the lower lobes of the eyes very small, almost sub-quadrangle, only slightly narrowing inferiorly, about three-quarters as long as the genae; the head completely finely and closely punctured, bearing a number of distinct tawny long setae at the inner border of the lower lobes of the eyes and lower border of the frons; completely finely and fairly closely ferruginous pubescent.

The pronotum transverse, moderately convex, with two strongly raised conical discal tumescences; with a moderately strong, broadly conical spinous tubercle on each side slightly behind the middle; completely finely and closely punctured with a number of fairly close, extremely large, scattered punctures in the anterior and posterior transverse grooves, which are broad and very shallow, except a little deeper medially; completely uniformly ferruginous pubescent, with a slight silky sheen in certain lights. The scutellum sub-triangular, extremely broadly rounded apically, almost truncate; very finely and closely punctured; dark ferruginous pubescent, lighter marginally.

The elytra not very elongate, only moderately convex, slightly rounded laterally, the apices obliquely truncate, the marginal angle distinctly spinously produced; the centro-basal crests strongly raised, black fasciculate; the elytra completely finely and closed punctured, with an irregular longitudinal band of extremely large punctures running from the inner side of the humerus along the outer side of the centro-basal tubercle almost to the middle of each elytron, a few slightly smaller and more sparse punctures on the sutural side of the centro-basal tubercle and a number of still slightly smaller punctures, more scattered, on the lateral and apical half of the elytra, from some of which the long, erect setae arise.

The prosternal protuberance narrow, particularly between the coxae, where it is sub-parallel in the main, strongly longitudinally concave, strongly curved. The mesosternal protuberance extremely broad anteriorly, sub-triangular, truncate and very slightly emarginate apically, the truncature only a little wider than the breadth of the prosternal protuberance medially. The apical ventrite strongly transverse, a little sub-triangular, the apex extremely broadly rounded and very slightly emarginate apically. The underside completely very finely and, in the main, closely punctured; finely grayish pubescent, sparse in the main, but a little more dense on the sternum and sides of the anterior abdominal segments.

The legs of moderate length; femora very strongly pedunculate; tarsi moderately slender,

the first segment of the posterior tarsi about equal in length to the following two united; all the legs very finely and moderately closely punctured; sparsely grayish pubescent.

Female.—Apparently unknown. (As *C. viridana* has up to the present been synonymous with this species, it is possible that specimens of the two species are mixed together in collections. Serville does not state the sex of his specimens).

Length, 6 mm.; breadth, 2.2 mm.

Locality.—Brazil—(Serville); Rio de Janeiro (Gilmour coll.) (1 ♂).

Material Examined.—Gilmour collection, 1.

This is one of the smaller species of the genus.

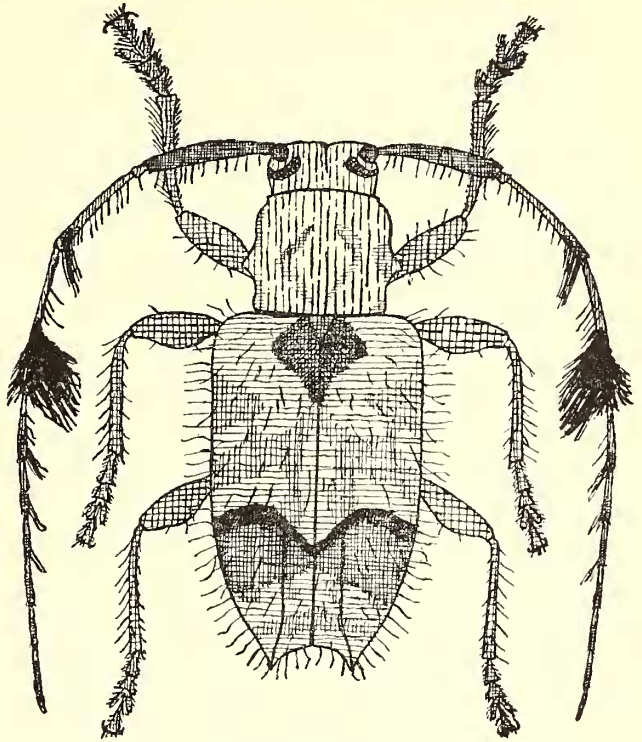
The specimens listed by Bosq (1944, Rev. Soc. Ent. Argent., 12, 201) from the Argentine are *C. viridana* Lacordaire, and not *C. sertifer* Serville. Dr. Bosq has sent me for examination a typical specimen which is certainly *viridana* Lacordaire.

COSMOTOMA TRIANGULARIS sp. nov.

Text-fig. 8

Description.—*Female*. Dark-brown to ferruginous and olive-green as follows: head and pronotum closely ferruginous pubescent; the elytra in the main olivaceous in color, except for some variegated silky gray pubescence around the humeri, extending to behind the centro-basal tubercles, then brokenly running to the margin at about the middle, a little suturally, and a little bordering the post-median dark band anteriorly and posteriorly, with the scutellum dark brown and the area from the base of the scutellum to the apex of the centro-basal tubercles thence extending to the suture at about the basal quarter, dark brown, with a little ferruginous pubescence, thus giving a triangular mark on each elytron, its base the suture, its apex at the centro-basal tubercle; also on each elytron, at about the apical two-fifths, a very distinct transverse, narrow, curved, dark-brown band, this shading off posteriorly to lighter brown, with tawny pubescence, to about the apical fifth to sixth; the antennae greenish in color, with the extreme apices of each segment dark ferruginous; the legs dark olivaceous, the tarsi dark brown; the underside pitchy-black, with the apex of the last ventrite ferruginous, covered with thin grayish pubescence, which is most dense on the sternum and the sides and posterior borders of first and second abdominal segments.

Comparatively (in this genus) robust, rather broadly elongate-ovate. Antennae only a little longer than the body (about one-ninth), (unfortunately lacking after the third segment in the Paratype), moderately slender, fringed beneath up to the sixth segment, with thin pencils of



TEXT-FIG. 8. *Cosmotoma triangularis* sp. nov. ♀ (× 7.0). Holotype.

setae at the apices of the third and fifth to seventh segments, the fourth segment bearing a large distinct brush of black setae on almost its apical half, which does not completely encircle the segment, but only about the longitudinal minor half, the area from which the setae of the brush arise being somewhat swollen. The scape moderately elongate, extending to about the basal fifth of the pronotum, not very swollen; the third segment about a fifth shorter than the scape, the fourth segment almost one and a half times as long as the third, only about one and a sixth times as long as the scape, and twice as long as the fifth segment, the rest gradually decreasing to the apex; the segments completely finely and fairly closely punctured, with distinctly larger punctures from which the setae arise. The antennal tubercles only slightly raised, the head very broadly and slightly concave between; the frons large, about equilateral, only moderately convex, with a very fine median longitudinal groove; the lower lobes of the eyes very small, slightly narrowing inferiorly, about as long as broad, about two-thirds as long as the genae; the head completely finely and closely punctured, bearing a few long setae at its anterior border and at the inner margin of the lower lobes of the eyes.

The pronotum transverse, moderately convex, bearing two strongly raised conical obtuse tumescences on the disc; with an only moder-

ately strong, conical, narrowly obtuse, tubercle laterally on each side slightly behind the middle; completely finely and closely punctured, with a number of very large punctures in a somewhat irregular more or less single row in both anterior and posterior transverse grooves, and extending more sparsely between the discal tubercles, and a few on the inner side of the base of the lateral tubercles; the anterior and posterior transverse grooves broad, and very shallow. The scutellum sub-triangular, very broadly rounded apically; very finely and closely punctured.

The elytra not very elongate, only moderately convex, more or less parallel-sided laterally to behind the middle thence broadly rounded to the apices, which are obliquely truncate, with the marginal angle rather stoutly and strongly spinously produced; the centro-basal tumescences moderately strongly raised and black fasciculate; the elytra finely and closely punctured, with a number of variably close, scattered, slightly larger punctures here and there and some much larger sparse punctures from which the long, erect setae arise.

The prosternal protuberance narrow, particularly between the coxae, where it is sub-parallel, rather strongly longitudinally concave, strongly curved. The mesosternal protuberance extremely broad and rather swollen anteriorly, sub-triangular, the apex truncate and very slightly emarginate apically, the truncature about equal in

width to the breadth of the prosternal protuberance medially. The ventrites of normal size; the apical segment transverse, broadly rounded laterally, the apex broadly emarginate, the lateral angles rounded, bearing a median longitudinal groove on the anterior half. (In the Holotype this is rather obtuse and ill-defined; in the Paratype it is much more distinctly marked). The underside completely finely, and in general, closely punctured, with a number of large, rather close punctures at the apex of the apical ventrite from which distinct setae arise.

The legs of moderate length; the femora strongly pedunculate; the tarsi moderately slender, the first segment of the posterior tarsi about equal in length to the following two united; all the legs very finely and fairly closely punctured; sparsely grayish pubescent.

Length, 10-10.25 mm.; breadth, 3.75-4 mm.

Locality.—Brazil—Rio de Janeiro (Holotype); (Paratype).

Holotype, ♀, and Paratype, ♀, in my collection.

Diagnosis.—This new species is easily the largest and most robust so far known in the genus. It appears to be most closely allied to *Cosmotoma sertifer* Serville (of which I feel quite certain it is not the female), but differs conspicuously by its large size, possessing a distinct post-median dark colored transverse elytral band, in the underside being black with the extreme apex ferruginous and the third antennal segment shorter than the scape, etc.

COSMOTOMA VIRIDANA Lacordaire

Text-fig. 9

Lacordaire, 1872, Gen. Col., 9 (2), 781, nota 1, p. 108, fig. 4 (non 3).

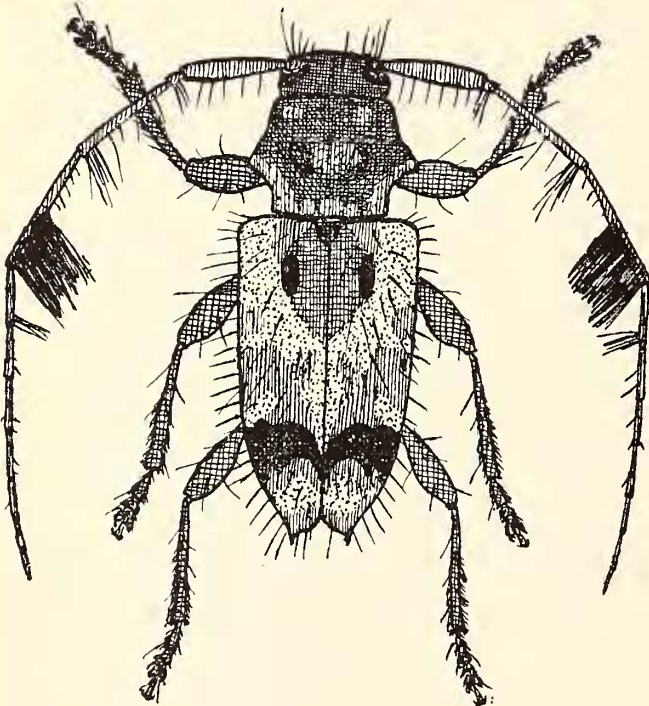
sertifer Bosq, 1944, Rev. Soc. Ent. Argent., 12, 201.

This species is certainly, in my opinion, quite distinct from *Cosmotoma sertifer* Serville with which it has been consistently synonymised since its description, with the exception of Gemmiger & Harold (1873, Cat. Col., 10, 3153) who, however, did not have *C. sertifer* Serville in the genus *Cosmotoma*, but retained it in *Pogonochaerus* (sic!) (l.c 3117). Apart from that it has been always synonymised by other authors who considered the two to be identical. I further believe that Argentinian specimens listed as *sertifer* Serville are almost certainly *viridana* Lacordaire.

I am very grateful to the authorities of the Musée Royale d'Histoire Naturelle de Belgique for so kindly sending me the Type specimen of Lacordaire, which is in excellent condition.

In view of the fact that this species and *Cosmotoma sertifer* Serville have been for so many years confounded, and that I have given a translation of Serville's original description, I give also, below, a translation of Lacordaire's original description.

"Gray-green, dark beneath, above silky and dark mixed, tarsi yellowish; 3rd antennal seg-



TEXT-FIG. 9. *Cosmotoma viridana* Lacordaire. ♀ (× 8.0). Type.

ment not penicillate; disc of prothorax strongly binodose; elytral apices spinose, with a single obtuse costa running down from the middle to the apex and provided with a black fasciculate basal crest, a common fascia behind the middle dark colored. Length, 8 mm. Habit. Brazil (Santa-Catherina Island). A very close species, perhaps the same, exist in some collections under the name of *pulchellum* Chevrol." (Translation of original description).

The Type of Lacordaire's description is a female and the figure given is of this specimen.

Description. Male.—Dark pitchy-brown and greenish intermixed; the head and pronotum pitchy; the elytra dark brown baso-suturally, covering the centro-basal crests and with a very distinct somewhat undulating transverse blackish-brown fascia at about the apical third; the pronotum with grayish pubescence postero-laterally from the apex of the lateral spines to the base; the elytra with variegated silky grayish pubescence with the green dermal color intermixed, chiefly grayish from the humeri almost to the middle, except on the baso-sutural dark area, and then apically behind the transverse fascia, medially between more broken and much less regular and extensive. The underside pitchy-black to dark ferruginous; covered with thin grayish pubescence which is most dense on the sternum and sides of the first abdominal segment.

Antennae about one and a third times as long as the body; slender; fringed below, most densely at the apices, and chiefly at the apices on the fifth to ninth segments; segment two with a pencil of setae beneath, segments three and five to seven with apical pencils of setae beneath, becoming much more sparse towards the latter; the fourth segment bearing, on about the apical two-fifths, a strong dense brush of long setae which is on the inner longitudinal half of the segment, not completely encircling the apical portion, which is swollen on the area from which the setae arise; the scape moderately elongate, extending to about the middle of the pronotum, a little swollen; the third segment about one and a half times as long as the scape, the fourth segment about one and a half times as long as the scape, not quite one and a third times as long as the third segment, and about two and a quarter times as long as the fifth segment, the rest gradually decreasing to the apex; the segments completely finely and closely punctured, except where the setae arise from rather larger punctures, particularly on the fourth segment where they are very large. The antennal tubercles slightly raised, moderately distinctly; the head moderately and broadly concave between. The frons large, about equilateral, moderately convex, with an extremely fine median

longitudinal groove; the lower lobes of the eyes small, narrowing inferiorly, slightly longer than broad, only about two-thirds as long as the genae; the head completely fairly finely and closely punctured, bearing a few long setae anteriorly and at the inner border of the lower lobes of the eyes; finely grayish-tawny pubescent.

The pronotum transverse, convex, with two strongly raised obtuse discal tumescences; with a broadly conical, strong, lateral, almost spinous protuberance on each side slightly post-medially; completely very finely and closely punctured, with a number of irregularly scattered very large punctures in the anterior and posterior transverse grooves, and a few extending, from the anterior groove, posteriorly between the discal tumescences; the transverse grooves very broad and very shallow; dark tawny-brown pubescent in the main, with slight areas of grayish pubescence latero-anteriorly on the posterior border and uniting there, and round the base of the lateral spines, extending to the posterior border. The scutellum sub-triangular, the apex very broadly rounded; very finely and closely punctured; blackish pubescent, narrowly margined with grayish-brown.

The elytra only moderately elongate, not very convex, narrowing a little, but almost straight-sided laterally to about the apical quarter, thence broadly rounded to the apices, which are obliquely truncate, with the marginal angle produced into a strong spine; the centro-basal tumescences moderately strongly raised, strongly black fasciculate; completely finely and closely punctured, with fairly numerous very large punctures scattered here and there, from some of which arise the long setae.

The prosternal protuberance narrow, particularly between the coxae, broadly longitudinally concave medially; strongly curved. The mesosternal protuberance very broad, particularly anteriorly, sub-triangular, truncate apically, the apex slightly emarginate, the truncature about one and a half times as wide as the breadth of the prosternal protuberance medially. The abdominal segments normal; the apical ventrite transverse, more or less broadly rounded, the apex slightly emarginate medially. The underside completely very finely and fairly closely punctured, with a few slightly larger punctures round the apex of the apical segment.

The legs of moderate length; the femora strongly pedunculate; the tarsi slender, the first segment of the posterior about equal in length to the following two united. All the legs very finely and closely punctured; rather sparsely grayish pubescent.

Female.—Similar in color to the male. The antennae slightly shorter, about one and two-

fifths times as long as the body. The apical ventrite more elongate, sub-triangular, the apex truncate and fringed with strong, not very long, hairs.

Length, 6-8.5 mm.; breadth, 2.1-3.2 mm.

Locality.—Brazil—Santa Catherina (ex. Lacordaire coll.) (Mus. Hist. Nat. Belg.) (Type, ♀); Santa Catherina, Corupa (Hansa Humboldt) (X1.44, A. Maller) (Amer. Mus. Nat. Hist.) (2♀), (1♀ in Gilmour coll. by exch.) id. loc. (X.45, A. Maller) (Amer. Mus. Nat. Hist.) (1♂); (ex. Candeze coll.) (Mus. Hist. Nat. Belg.) (1♂); Rio Grande do sul (Hincks-Dibb coll.) (1♀); Nova Teutonia, (27° 11' S, 52° 23' W) (Fritz Plaumann) (J. M. Bosq coll.) (1♀); (Amer. Mus. Nat. Hist.) (X-XII, 41) (7♂, 8♀); Nova Teutonia, Corupa (Hansa Humboldt) (J. M. Bosq. in litt.); Est. Sao Paulo (J. M. Bosq in litt.); (Amer. Mus. Nat. Hist.) (X, XII, 44) (1♂, 1♀). Argentina—Misiones (Alta Parana) (J. M. Bosq in litt.).

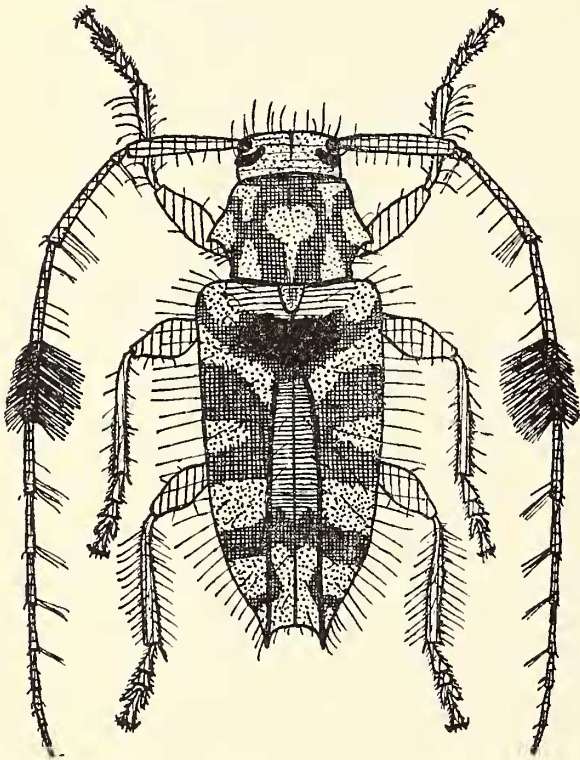
Material Examined.—Mus. Roy. Hist. Nat. Belg., 2; Amer. Mus. Nat. Hist., 20; Hincks-Dibb collection, 1; J. M. Bosq collection, 1; Gilmour collection, 1. Total 25.

COSMOTOMA OLIVACEA sp. nov.

Text-fig. 10

Description. Female.—Dark brown to ferruginous, with olive-green intermixed, particularly on the elytra. The head and pronotum dark

brown, the latter becoming ferruginous on the anterior and posterior borders. The scutellum ferruginous. The elytra ferruginous basally between the humeri and suture and extending a little suturally, the rest of the elytra laterally and behind the centro-basal tumescences becoming dark ferruginous. The head covered with thin grayish pubescence; the pronotum covered in the main with dark olivaceous pubescence, variegated with grayish pubescence medially, extending narrowly posteriorly to the base, a small amount antero-laterally and postero-laterally on each side of the disc, and also grayish on the lateral tubercles. The scutellum brownish pubescent, narrowly margined with gray. The elytra thinly ferruginous pubescent basally; for the rest in general dark olivaceous pubescent, broken into fine transverse bands by grayish pubescence as follows: a band from beneath the humeri to the suture just behind the centro-basal tumescences, a broad one from the basal third and one from immediately behind the middle which unite at about the middle of the disc, but do not reach the suture, but end at the suturo-discal obtuse carinae, one at about the apical third, which runs slightly forward to the suture, and finally a very narrow, less distinct, dark olivaceous band at about the apical eighth which reaches the carina, turns anteriorly on the inner side of it and ceases just short of the preceding transverse band; the rest silky variegated gray



TEXT-FIG. 10. *Cosmotoma olivacea* sp. nov. ♀ (× 9.8). Holotype.

pubescent. The underside light ferruginous, covered thinly with grayish pubescence, which is most dense on the sternum and latero-posteriorly on the first and second abdominal segments. The antennal scape greenish; the rest of the segments light ferruginous; very thinly grayish pubescent. The femora light ferruginous basally, the swelling green; the tibiae ferruginous-green; the tarsi ferruginous; all the legs covered sparsely with grayish pubescence.

Ovate-elongate; not very robust. The antennae about one and a half times as long as the body; sparsely fringed below up to the fifth segment; segment two with a thin pencil of setae below, and segments three and five to eight with thin pencils of black setae below at their apices; the fourth segment bearing a large distinct brush of long black setae on about its apical two-fifths, which does not quite surround that apical portion, but leaves about the outer longitudinal quarter naked, the area covered by the setae somewhat swollen; the scape moderately elongate, extending to about the basal third of the pronotum, moderately swollen; the third segment about one and a seventh times as long as the scape, the fourth segment not quite one and two-thirds times as long as the scape, about one and two-thirds times as long as the third segment, and almost two and a half times as long as the fifth segment, the rest gradually decreasing to the apex; the segments completely finely and closely punctured, except where setae arise from rather larger punctures, particularly on the fourth segment where they are much larger. The antennal tubercles slightly raised, the head slightly and broadly concave between. The frons large, about equilateral, moderately strongly convex, with a very fine median longitudinal groove; the lower lobes of the eyes small, narrowing a little inferiorly, about as long as broad, about two-thirds as long as the genae; the head completely finely and closely punctured, bearing a few long setae anteriorly and at the inner border of the lower lobes of the eyes.

The pronotum transverse, very strongly convex discally, the two discal tumescences not separated from one another medially, but forming a large transverse tumescence; with a moderately broadly conical spinous swelling laterally on each side, slightly behind the middle; completely finely and fairly closely punctured, with a somewhat irregular, more or less single, row of very large punctures only on the posterior transverse groove, which is broad and only very slightly broadly concave, the anterior transverse groove not very broad and scarcely at all concave. The scutellum sub-triangular, extremely broadly rounded, almost truncate api-

cally; a little longitudinally concave towards the apex; very finely and closely punctured.

The elytra only moderately elongate, not very strongly convex, almost parallel-sided to about the apical third, thence broadly rounded to the apices, which are obliquely truncate, with the marginal angle produced into a strong spine; the centro-basal tumescences moderately strongly raised, black fasciculate; each elytron with a distinct (because glabrous — probably rubbed), longitudinal, fairly broad, very obtuse, carina running from immediately behind the centro-basal tubercles to the elytral marginal apex, and becoming a little more raised towards the apex; completely finely and closely punctured, with a number of large punctures scattered here and there from some of which arise long setae.

The prosternal protuberance fairly narrow, particularly between the coxae; almost plane and scarcely at all concave; strongly curved. The mesosternal protuberance extremely broad anteriorly, sub-triangular, rather swollen, the sides distinctly bisinuate, towards the apex not immediately truncate, but for a very short but distinct distance becoming parallel-sided, the apex broadly truncate, and very broadly and shallowly emarginate, the truncature about one and a quarter times as wide as the breadth of the prosternal protuberance medially. The abdominal segments of normal size; the apical ventrite transverse, somewhat broadly emarginate; and bearing a distinct median longitudinal groove on its anterior half. The underside completely finely and fairly closely punctured, with a number of distinct larger punctures at the apex of the apical ventrite, which bears short setae.

The legs of moderate length; the femora strongly pedunculate; the tarsi slender, the first segment of the posterior about equal in length to the following two united; all the legs finely and fairly closely punctured.

Male.—Unknown.

Length, 7 mm.; breadth, 2.5 mm.

Locality.—Brazil—Rio de Janeiro.

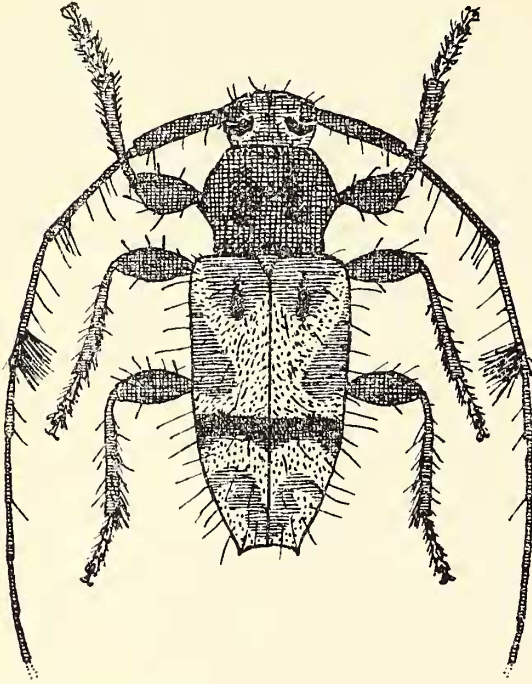
Holotype, ♀, in my collection. Unique.

Diagnosis.—This new species at first glance is very similar to *Cosmotoma viridana* Lacordaire, but on examination is seen to differ distinctly in not possessing a dark brown pubescent transverse post-median band, the two pronotal discal tumescences not separated medially, the pronotum without large punctures anteriorly, etc.

COSMOTOMA MELZERI sp. nov.

Text-fig. 11

Description. Female.—Dark brown to ferruginous in color, the elytra somewhat dark



TEXT-FIG. 11. *Cosmotoma melzeri* sp. nov. ♀
($\times 7.2$). Holotype.

olivaceous-ferruginous in part. The head dark ferruginous, the pronotum pitchy-brown in color. The scutellum ferruginous. The elytra somewhat olivaceous-ferruginous in general dermal color, with the apex of the centro-basal tubercles black and black fasciculate, also bearing, at about between the middle and apical two-fifths, a narrow blackish pubescent transverse band, which has its anterior border almost straight, and its posterior border slightly anteriorly curved; also variegated with silvery-gray rather thin pubescence which extends rather narrowly from the humeri round the centro-basal tubercles posteriorly to the suture about midway between the centro-basal tubercles, thence extending rather broadly along the suture to the transverse dark band which it borders anteriorly rather narrowly to the margin; the transverse dark band rather broadly bordered posteriorly with silvery-gray pubescence, and the elytral apex also rather irregularly, chiefly apico-laterally, sparsely grayish. The underside ferruginous covered thinly with grayish-white pubescence, which becomes most dense on the sternum and latero-posteriorly on the first abdominal segment. The antennal scape greenish, the rest of the segments rather dark ferruginous; with thin grayish-brown pubescence. The femora and tibiae greenish, the tarsi ferruginous; the legs covered sparsely with grayish pubescence.

Not very robust, elongate-ovate. Antennae distinctly longer than the body after about the

sixth segment, (unfortunately the two apical segments are lacking, but the antennae will be probably a little more than one and a half times as long as the body when complete); rather slender, sparsely fringed beneath up to the fifth segment, on which there are only a few setae and only one or two at the apex of the sixth, the apex of the third segment with a very sparse pencil of hairs beneath, the fourth segment bearing a comparatively small (in this genus) brush of black setae on little more than its apical quarter, which does not completely encircle the segment, only being present beneath and internally in part, the segment a little swollen on the area from which the setae arise. The scape rather elongate and rather slender, not very swollen, extending a little past the middle of the pronotum; the third segment about one and a fifth times as long as the scape, the fourth segment only about one and an eighth times as long as the third, about one and a third times as long as the scape, and almost twice as long as the fifth segment, the rest gradually decreasing to the ninth segment, (thereafter broken, but presumably shorter to the apex); the segments completely very finely and closely punctured, with larger punctures from which the setae arise, particularly on the fourth segment. The antennal tubercles only slightly raised, the head broadly and shallowly concave between; the frons large, about equilateral, moderately strongly convex, with an extremely fine, indistinct, median longitudinal

groove; the lower lobes of the eyes small, distinctly narrowing inferiorly, in fact almost sub-triangular, slightly longer than broad, about equal in length to the genae; the head completely very finely and closely punctured, bearing a few long setae at its anterior border and one or two at the inner margin of the lower lobes of the eyes.

The pronotum not strongly transverse, only about one and a quarter times as broad as long, rather strongly convex, bearing two strongly raised, conical, very obtuse tumescences on the disc; the lateral border rather strongly rounded and swollen anteriorly, running almost regularly to the small lateral spinous conical tubercle, thence rather strongly narrowed posteriorly to the base; completely finely and closely punctured, except for the apices of the discal tumescences, which are impunctate and nitid; with a few sparse very large punctures in the anterior and posterior transverse grooves, these latter being extremely shallow, very broad and almost obsolete. The scutellum sub-triangular, moderately broadly rounded apically; very finely and closely punctured.

The elytra only moderately elongate, only moderately convex, almost parallel-sided to about the apical third, thence broadly rounded to the apices, which are slightly obliquely truncate, with the marginal angle produced into a rather broad, strong, pointed spine; the centro-basal tumescences strongly raised and black fasciculate; completely finely and closely punctured, with large punctures scattered here and there from which long erect setae arise.

The prosternal protuberance moderately narrow, broadly rounded, broadly and slightly longitudinally concave medially. The mesosternal protuberance very broad, somewhat swollen anteriorly, sub-triangular, a little sinuate laterally, the apex broadly truncate, extremely slightly, scarcely at all, broadly emarginate, the truncature about one and a half times as broad as the breadth of the prosternal protuberance medially. The abdominal segments of normal size; the apical segment transverse, the apex very broadly truncate, very slightly roundly so; the lateral angles rounded, with a number of large distinct hair-bearing punctures towards apex, (the abdomen is somewhat ventrally deflexed so that the anterior half of the apical ventrite is not visible and the groove on the anterior half, which I think in this species must be very feeble, is not visible; the strong setae-bearing apical punctation is, however, normally a female character in this genus). The underside otherwise completely very finely and rather variably closely punctured.

The legs of moderate length; the femora pedunculate; the tarsi moderately slender, the

first segment of the posterior tarsi about equal in length to the following two united; all the legs finely and closely punctured, with a few slightly larger punctures scattered here and there.

Male.—Unknown.

Length, 8.5 mm.; breadth, 2.9 mm.

Locality.—Brazil—Bahia.

Holotype, ♀, in my collection. Unique.

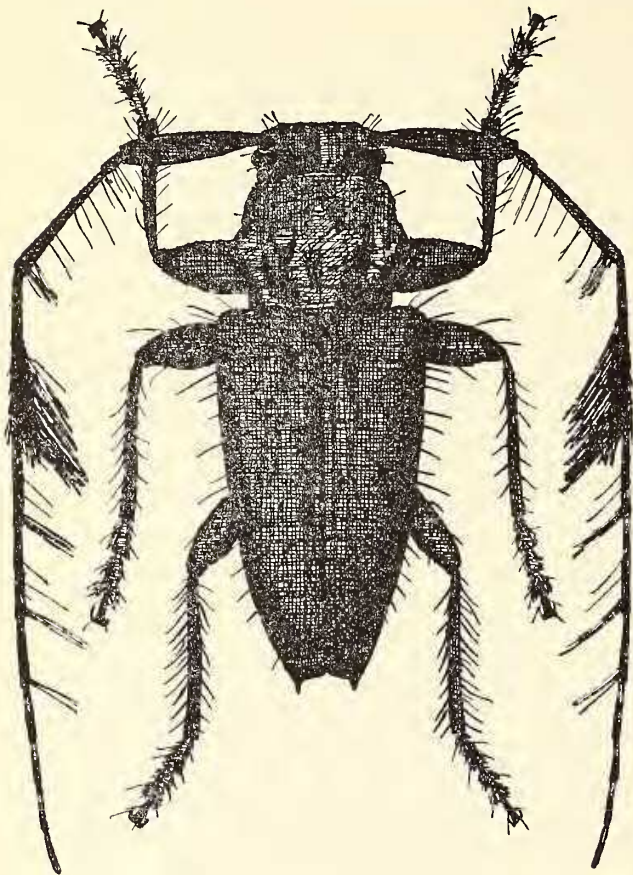
Diagnosis.—This distinct new species differs from all the other known species of the genus in the much smaller size of the brush of setae on the fourth antennal segment and in the rather different pronotal shape, which is more rounded laterally, etc. From *Cosmotoma viridana* Lacordaire, it differs further in the almost straight, narrow, dark-colored, post-median elytral band, in being distinctly brownish in appearance and not greenish, as well as other distinct characters.

COSMOTOMA NIGRA sp. nov.

Text-fig. 12

Description. Male.—Completely pitchy-black above and below, without any markings of any kind; the base of antennal segments five to eleven pale ferruginous-yellow annulate on about their basal quarter to third; completely covered, sparsely and extremely finely, with short grayish pubescence, which is nowhere dense enough to give a grayish appearance, except perhaps where a little denser on the upper surface of the intermediate and posterior femora.

Not very robust, somewhat ovate-elongate in shape, but the elytra somewhat attenuate apically. The antennae about one and a half times as long as the body, sparsely fringed below up to about the sixth segment, segments three and five to seven with thin pencils of setae beneath their apices; the fourth segment bearing a large distinct brush of black setae on about its apical half, which does not completely encircle the segment, but only about the inner longitudinal half, the area bearing the setae distinctly swollen; the scape moderately elongate, extending to about the basal quarter of the pronotum, moderately swollen; the third segment very slightly shorter than the scape, the fourth segment about one and a sixth times as long as the scape, almost one and a third times as long as the third segment, and about one and three-quarter times as long as the fifth, the rest gradually decreasing to the apex; the segments completely finely and closely punctured, except where the setae arise from larger punctures. The antennal tubercles only very slightly raised, the head slightly and broadly concave between. The frons large, very slightly transverse, moderately convex, with a fine median longitudinal groove; the lower lobes of the eyes small, only very slightly narrowing inferiorly, almost sub-quadrate about three-



TEXT-FIG. 12. *Cosmotoma nigra* sp. nov. ♂ ($\times 10.7$). Holotype.

quarters as long as the genae; the head completely finely and closely punctured, bearing only very few long setae anteriorly and at the inner margin of the lower lobes of the eyes.

The pronotum transverse, moderately convex, bearing two strong discal tumescences; with a strong, broad, conical, obtuse swelling laterally on each side, slightly post-medially; completely very finely and closely punctured, with a few sparse very large punctures scattered in the anterior and posterior transverse grooves, and few anteriorly between the discal tubercles. The transverse grooves broad, the posterior very shallow, the anterior more distinct. The scutellum sub-triangular, moderately broadly rounded apically; finely and closely punctured.

The elytra only moderately elongate, not strongly convex, narrowing towards the apices, which are a little obliquely truncate, with the marginal angle strongly spinously produced; the centro-basal tumescences moderately strongly raised and densely black fasciculate; completely very finely and fairly closely punctured, with larger punctures scattered here and there from which erect setae arise.

The prosternal protuberance narrow, particu-

larly between the coxae, slightly longitudinally concave, moderately strongly curved. The mesosternal protuberance very broad and rather swollen anteriorly, sub-triangular, the apex truncate and very slightly emarginate, the truncate a little wider than the breadth of the prosternal protuberance medially. The abdominal segments of normal size; the apical ventrite transverse, somewhat broadly rounded, its apex rather broadly emarginate. The underside completely finely and fairly closely punctured, with a few slightly larger punctures on the sides of the abdominal segments.

The legs of moderate length; the femora pedunculate; the tarsi slender, the first segment of the posterior tarsi very slightly longer than the following two united; all the legs fairly finely and fairly closely punctured, with a number of slightly larger punctures scattered here and there.

Length, 7 mm.; breadth, 2.5 mm.

Locality.—Brazil—Santa Catherina.

Holotype, ♂, in the Musée Royale d'Histoire Naturelle de Belgique. Unique.

Diagnosis.—This new species is conspicuously different from *Cosmotoma adjuncta* Thomson and all other known species in the genus in being uniformly black in color.

COSMOTOMA PALLIDA sp. nov.

Text-fig. 13

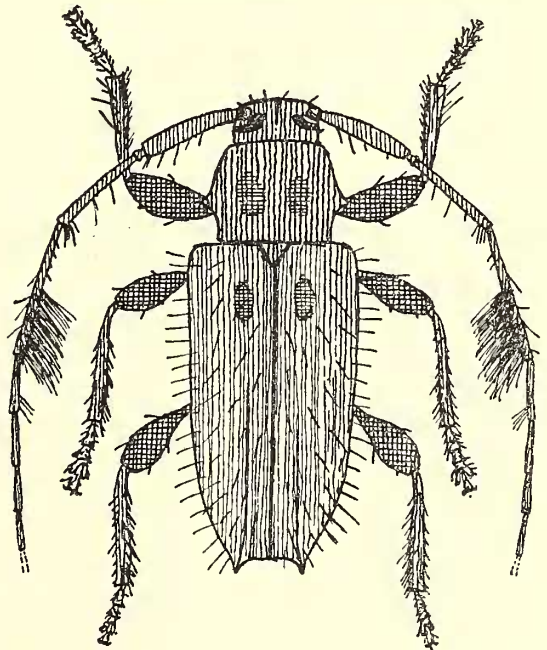
Description. Female.—In general appearance uniform yellowish-brown. The dermal color of head, pronotum and underside dark pitchy-brown, of the elytra fulvous-ferruginous; the antennae, femora and tibiae greenish to greenish-ferruginous, the tarsi light ferruginous, completely covered with very thin, short, fulvous pubescence, without any trace of other color except extremely slightly darker suturally at about the apical third, and the black fasciculae.

Ovate-elongate; not very robust. The antennae distinctly longer than the body (unfortunately broken after the eighth segment in the best specimen, but probably about one and a third times as long as the body when complete); very sparsely fringed below up to the fifth segment, the third and fifth and perhaps the sixth segment bearing thin pencils of setae beneath; the fourth segment bearing a large distinct brush of black setae on about its apical two-fifths, which does not completely encircle the apical area, but leaves about the outer longitudinal half naked, the area bearing the setae distinctly swollen; the scape moderately elongate, extending to about the basal third of the pronotum, not very strongly swollen; the third segment about equal in length to the scape, the fourth segment about one and a third times as long as the scape, about two and a third times as long as the fifth segment, the rest gradually decreasing to the apex; the segments completely

finely and closely punctured with larger punctures from which the setae arise. The antennal tubercles only a little raised, the head broadly concave between. The frons large, about equilateral, moderately strongly convex, with a very fine median longitudinal groove; the lower lobes of the eyes small, narrowing inferiorly, about one and a quarter times as long as broad, about two-thirds as long as the genae; the head completely finely and closely punctured, with only a very few extremely sparse setae at the lower border and inner borders of the lower lobes of the eyes.

The pronotum transverse, moderately convex, bearing two strong discal tumescences; with a moderately strong spinous swelling laterally on each side, slightly behind the middle; completely very finely and closely punctured, with a more or less single irregular row of very large punctures in the anterior and posterior transverse grooves, which are broad and not very strongly concave, also a few of these large punctures antero-medially almost between the two discal tubercles. The scutellum sub-triangular, a little elongate, rather narrowly rounded apically; very finely and closely punctured.

The elytra only moderately elongate, not very strongly convex, more or less parallel-sided to about the apical third, thence broadly rounded to the apices, which are obliquely truncate, with the marginal angle produced into a strong sharp pointed spine; the centro-basal tumescences moderately strongly raised and black fasciculate;



TEXT-FIG. 13. *Cosmotoma pallida* sp. nov. ♀ (× 8.0). Holotype.

completely very finely and closely punctured, with larger punctures scattered here and there, from some of which long erect setae arise.

The prosternal protuberance narrow, particularly between the coxae, where it is rather parallel-sided for a short distance; rather strongly curved. The mesosternal protuberance very broad and rather swollen anteriorly, sub-triangular, the apex truncate and slightly, but distinctly, emarginate, the truncature only slightly wider than the breadth of the prosternal protuberance medially. The abdominal segments of normal size; the apical transverse, but a little conical, the apex very broadly truncate, bearing a distinct median longitudinal groove on its anterior half. The underside completely finely and fairly closely punctured, with numerous large, setae-bearing punctures at the apex of the apical ventrite.

The legs of moderate length; the femora pedunculate; the tarsi slender, the first segment of the posterior tarsi about equal in length to the following two united; all the legs finely and moderately closely punctured, with a few slightly larger scattered punctures.

Male.—Quite similar in color to the female. A little less robust, and the elytra less parallel-sided, more attenuate to the apices.

The apical ventrite transverse, less elongate than the female, more or less broadly rounded, the apex slightly, but distinctly emarginate, the lateral angles rounded; lacking, or with very many fewer, large seta-bearing punctures.

(The comparative antennal length unknown as the antennae are completely lacking in the only male specimen examined).

Length, 7.5-8.5 mm.; breadth, 2.8-3.2 mm.

Locality.—Brazil—Santa Catherina (1♂, 2♀).

Holotype, ♀, Allotype, ♂, in my collection. Paratype, ♀, (from my collection No. 6284) in the United States National Museum. (Exchanged for the paratype of *Cosmotoma fasciata* Fisher).

I have made the female the Holotype because two almost complete females were seen, the male lacking its antenna.

Diagnosis.—This new species is conspicuously different from *Cosmotoma adjuncta* Thomson and all the other known species in the genus in being uniformly fulvous-yellow in color.

COSMOTOMELLA gen. nov.

Description.—Moderately elongate, sub-parallel, finely pubescent, silky or with silky reflections, with erect setae throughout.

Head large, concave between the antennal tubercles; frons transverse; eyes small, finely granulated; genae elongate. Antennae of male about one and a half times as long as the body,

in the female about as long as or slightly longer than the body; with erect hairs beneath; scape slender, slightly longer than the third segment, fourth segment longer than the third, the fifth to eleventh gradually decreasing; fourth segment bearing beneath a fascicule of long hairs. Pronotum about as long as broad, sub-globose, strongly convex dorsally, the disc bearing two feeble tubercles; broadly rounded, but only feebly tuberculate, not spinous laterally. Scutellum sub-triangular in male, broadly rounded in female. Elytra straight in front, scarcely broader than the pronotum at widest; moderately elongate, rather straight-sided, sub-parallel laterally, narrowing gradually to the apices which are sinuately truncate, the marginal angles spinous; a strong centro-basal tumescence. Legs of moderate length; setose; femora pedunculate, very swollen distally; tarsi rather short, the first segment of the posterior about as long as segments two and three united. Prosternal protuberance not very broad, curved posteriorly; mesosternal protuberance broad, triangular. Apical ventrite broadly rounded and emarginate apically in male, a little more elongate and broadly rounded apically in female, the last segment in female with a distinct median longitudinal groove on the basal half.

Genotype: COSMOTOMELLA ZIKANI Melzer, 1927. Brazil.

This new genus, created for the reception of the species described as *Cosmotoma zikani* Melzer, differs conspicuously from *Cosmotoma* Blanchard in lacking lateral pronotal spines, in the centro-basal elytral crest not bearing a fascicule of hairs, in the pronotal shape varying between the two sexes, and the more elongate and parallel form.

Table 1 gives the relative proportions of length to breadth of *Cosmotomella zikani* Melzer and the species of *Cosmotoma* Blanchard. From this it will be seen that *Cosmotomella zikani* Melzer is always slightly more than three times as long (in total length) as broad, whereas all the species of *Cosmotoma* Blanchard are less than three times. Also the elytral length of *Cosmotomella zikani* Melzer is always slightly more than twice the breadth, whereas in the species of *Cosmotoma* Blanchard it is less than twice.

COSMOTOMELLA ZIKANI Melzer

Text-figs. 14 ♀, 15 ♂

Melzer, 1927, Rev. Mus. Paulista, 15, 574.

A pair of specimens in my collection agree with Melzer's description almost completely, except in one or two, perhaps minor, points. Examination of these during the course of this revision showed further sexual dimorphism than

TABLE 1. COMPARISON OF BODY PROPORTIONS BETWEEN THE SPECIES OF THE GENERA *Cosmotoma* SERVILLE AND *Cosmotomella* GILMOUR.

Species	Body: Breadth (1) (Averages)	Elytra: Breadth (1)
COSMOTOMA		
<i>olivacea</i> Gilmour	2.58	1.79
<i>sertiifer</i> Serville	2.77	1.95
<i>nigra</i> Gilmour	2.65	1.73
<i>suturalis</i> Gilmour	2.76	1.96
<i>adjuncta</i> Thomson	2.69	1.75
<i>rubella</i> Bates	2.69	1.79
<i>nigricollis</i> Bates	2.64	1.72
<i>melzeri</i> Gilmour	2.90	1.85
<i>pallida</i> Gilmour	2.73	1.91
<i>triangularis</i> Gilmour	2.59	1.74
<i>viridana</i> Lacordaire	2.82	1.81
COSMOTOMELLA		
<i>zikani</i> Melzer	3.14-3.3	2.14-2.15

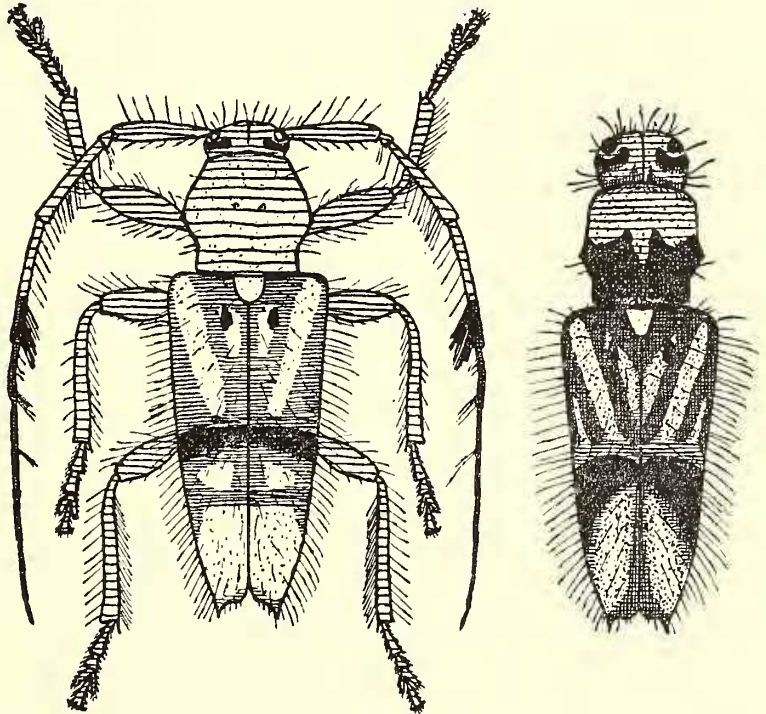
noted by Melzer, and further differentiating features from *Cosmotoma* Blanchard, in which Melzer originally placed the species, while noting that it did not completely agree with the generic characters of this genus. I have, there-

fore, as described above, created a new genus, *Cosmotomella*, for the species *zikani* Melzer.

Comparison is not possible between the male antennae, for in my specimen these are lacking after the scape. Further, Melzer states that the pronotum is unarmed laterally. I cannot believe that such an apparently competent observer as Melzer would overlook any trace of tubercle and must therefore point out that while there is only an extremely faint trace in my female specimen, in the male it is visible, though feeble, and somewhat more superior than in the genus *Cosmotoma* Blanchard. Perhaps it is possible that in *zikani* Melzer there is an individual variation in pronotal shape. Melzer does not comment on any undue sexual difference in pronotal shape, but in my two specimens this is quite conspicuous, as will be seen by the figures, and yet I am quite sure that my specimens are the same species, showing also a similar sexual color difference as noted by Melzer.

In view of these differences I give, firstly a translation of Melzer's original description, so that other workers may draw their own conclusions.

"Related to *C. viridana* Lacord., olivaceous-piceous, clothed with silky silvery pubescence, interspersed with long erect setae, the elytra marked with a black fascia behind the middle; the head large, concave between the antennae, the frons transverse, sub-planate, the eyes small,



TEXT-FIG. 14 (Left).
Cosmotomella zikani
Melzer. ♀ (× 7.0).

TEXT-FIG. 15 (Right).
Cosmotomella zikani
Melzer. ♂ (× 7.9).

minutely granulated, the genae elongate; the antennae of the ♂ a half longer than the body, in the ♀ over-reaching the apex of the elytra by the last three segments, the scape slender, slightly shorter than the 3rd segment, the 4th longer than the preceding, 5-11 sub-equal, elongately fimbriate beneath, the 4th segment ornated beneath the apex with a crest of hairs; the thorax not broader than long, sub-globose, the base strongly constricted, strongly convex dorsally and armed with two obsolete tubercles placed transversely in the middle, unarmed laterally, the scutellum densely silky-silvery pubescent; the elytra almost equal to the thorax at the greatest width, straight truncate basally, gradually attenuate posteriorly, the apices themselves singly sinuately truncate, the external angles spinose, the centro-basal carinae strong, not fasciculate, not costate posteriorly; the legs subequal, the femora pedunculate, strongly clavate; the prosternal process moderately broad, the mesosternal process broad; the metasternum rather densely silky pubescent, the mesosternal and metasternal epimera and also the posterior margin of the 1st abdominal segment with white pubescence.

"Length, 8.25-10 mm. 1♂, 2♀.

"*Locality*.—Fazenda Jerusalem, Estado do Espirito Santo, Rio Muriahé, Estado do Rio de Janeiro, Rio José Pedro, Estado de Minas Geraes, J. F. Zikan leg.

"Through its principal characters, this longicorn appertains to the genus *Cosmotoma*, but because of the complete lack of the lateral spines of the prothorax, etc., fails in similarity.

"Through the more parallel form, through the lack of the spine on each side of the prothorax, through the lack of the fascicules hairs and of costae on the elytra and further through the fascicules much reduced on the fourth antennal segment, this species easily distinguishes itself from *C. viridana* Lacord.

"The transverse band on the elytra in the ♀ is narrow and opaque, in the ♂, however, it is much broader, lustrous and accompanied through to the suture as if forming a bridge." (Translation of the original description.)

Male.—Head and pronotum black; elytra pitchy to dark ferruginous; antennae, legs and underside ferruginous. Head and pronotum with variably dense olivaceous pubescence; on the head most dense on the genae, between the antennal tubercles and round the eyes; on the pronotum most dense on the anterior half and medially, on the minute lateral tubercle whitish. The scutellum densely white pubescent. The elytra with, in general, dark brown pubescence, marked with olivaceous and white pubescence; the dark brown pubescence becoming very

dense and forming a somewhat curved post-medial complete fascia which distinctly broadens to the margin; the olivaceous pubescence as follows: along the anterior border of the fascia, a vitta from the humeri to the fascia near the suture, and suturally on the anterior half; the white pubescence as follows: a narrow short pre-medial vitta at the side of the disc, and a broad oblique irregular area on the posterior half, which gradually becomes olivaceous round its borders. The antennae and legs finely olive-gray pubescent, on the latter becoming white on the tibiae and tarsi. The underside finely olivaceous pubescence; the mesosternal and metasternal epimera, and the postero-lateral border of the first abdominal segment with dense white pubescence.

The antennal scape slender, rather elongate, extending to about the basal third of the pronotum; finely and closely punctured; sparsely but distinctly fringed beneath; (all the other segments unfortunately lacking in the only male examined). The antennal tubercles moderately raised, widely separated. The frons very slightly transverse, moderately but distinctly convex; the lower lobes of the eyes small, narrowing inferiorly, about as long as broad, about two-thirds as long as the genae; the head completely finely and closely punctured, with numerous long, erect setae.

The pronotum about as broad as long, sub-globose, only slightly rounded laterally to about the middle, thence distinctly constricted to the base; bearing laterally, slightly behind the middle on each side a small obtuse tubercle; the disc strongly convex, bearing medially on each side a distinct broad, obtuse tubercle; the whole very finely and fairly closely punctured, much more sparsely on the discal tubercles, and with two or three large punctures anteriorly and a few posteriorly near the borders. The scutellum sub-triangular, rounded apically; about as long as broad; very finely and closely punctured.

The elytra elongate, attenuate to the apices; a little broader basally than the pronotum medially; the humeri distinct; rather convex, but with a distinct elongate depression from the inner side of the humeri; somewhat abruptly declivous at about the apical fifth; the apices each distinctly, slightly sinuate emarginate, the marginal angle strongly spinous, the sutural angle rather narrowly rounded; each elytron with a strongly raised centro-basal tumescence; the whole very finely and closely punctured, with a few very large punctures on the disc just behind the basal tumescences; with numerous long erect setae.

The prosternal protuberance moderately broad, shallowly, longitudinally depressed me-

dially; moderately strongly curved. The mesosternal protuberance very broad basally, broadly sub-triangular, the apex truncate, the truncature about as broad as the prosternal protuberance medially, somewhat plane above, gradually rounded anteriorly. The abdominal segments of normal size; the apical ventrite slightly transverse, rounded apically, with a very shallow, obtuse, median emargination. The underside more or less completely finely and closely punctured, the punctures more sparse on the abdominal segments, the apical ventrite a little coarsely punctured, particularly towards the apex.

The legs of moderate length, (comparatively a little more elongate than in the genus *Cosmotoma*); the femora pedunculate, strongly clavate; the tarsi rather elongate and rather slender, the anterior the broadest; the first segment of the posterior tarsi about equal in length to the following two segments united; the tarsal claws divaricate. All the legs very finely and closely punctured; with numerous long erect setae, particularly on the tibiae, which are also most densely pubescent.

Female.—More robust than the male, and of moderately similar aspect, but differing conspicuously in many ways on examination.

The general color lighter. The head and pronotum more or less uniformly and densely olivaceous pubescent; this is a little yellowish on the middle of the head and middle of the pronotum. The scutellum similarly densely white pubescent. The elytral general brown pubescence somewhat lighter; the dark brown transverse fascia just behind the middle narrower, almost straight, and not widening laterally; the olivaceous pubescence as found in the male, more grayish-olivaceous and a little more extensive, the short white lateral premedian vitta more or less lacking, the apical third rather more extensively silky grayish to olivaceous-gray pubescent. The legs more densely grayish pubescent. The antennae grayish pubescent, becoming light brown from the apical third of the fourth segment. The underside more olivaceous-yellow pubescent; the metasternum almost completely grayish-yellow pubescent; the white epimera of the mesosternum, metasternum and

first abdominal segment somewhat less distinct owing to the more dense general pubescence.

The antennae about one and a sixth times as long as the body; slender; fringed below, although only sparsely and apically on segments after the fourth; the fourth segment bearing a moderate brush of setae below on its apical third; the scape slender, moderately elongate; the third segment about equal in length to the scape, the fourth segment about one and a third times as long as the scape; the following segments gradually decreasing to the apex, the fifth segment slightly curved; the segments completely finely and closely punctured. The frons slightly transverse, much less convex than in the male, and the median longitudinal groove more distinct.

The pronotum much more distinctly globose than in the male; the lateral tubercle almost obsolete, scarcely discernible; the two discal tumescences much smaller and less distinct, the general convexity being stronger. The scutellum larger, about as long as broad, not sub-triangular, more or less regularly rounded.

The elytra slightly less attenuate than in the male, comparatively not so much broader than the pronotum; otherwise structurally similar to the male; the centro-basal tumescences with a few long erect setae, (these are only present on the left elytron, so it is possible that they were originally present in the male; they do not form a fascicule); the lateral apical elytral spine a little broader and not quite as elongate.

The underside similar to that of the male, except, the apical truncature of the mesosternal protuberance broader, about one and a half times as broad as the prosternal protuberance medially; the apical ventrite comparatively a little more elongately conical, bearing a very distinct median longitudinal groove on its anterior half, the apex broadly rounded and with a number of very large coarse punctures and short setae.

The legs a little less elongate compared to the male. Tarsal proportions similar to those of the male.

Length, 8.5-9.5 mm.; breadth, 2.9-3.1 mm.

Locality.—Brazil: Espirito Santo (1♂); Rio de Janeiro (1♀).

Material Examined.—Gilmour collection, 2.